POWERSCREEN®
TRAKPACTOR 320
HORIZONTAL IMPACTOR

GET STARTED

TECHNICAL SPECIFICATION - REV 10 01/02/2023

To use my interactive features I need to be opened in 'Adobe Acrobat Reader' click here to download

TRAKPACTOR 320

OVERVIEW

SPECIFICATION

Total Weight VGF:	Tier 3: 36,800kg (81,130lbs) Bypass conveyor, twin pole magnet, grinding path Tier 4F: 36,560kg (80,601lbs) Hopper extensions, bypass conveyor, single pole magnet	
Total Weight PS:	Tier 4F: 38,160kg (84,128lbs) Hopper extensions, bypass conveyor, single pole magnet	
Transport	**Length**	14.78m (48' 6")
	Height	3.46m (11' 4")
	Width	2.57m (8' 5")
Working	**Length**	14.36m (47' 1")
	Height	3.85m (12' 8")
	Width	5.53m (18' 2") with bypass conveyor deployed
Crusher Type:	Twin apron 4 bar impact crusher, feed opening 1130 x 800mm (44.5" x 31.5")	
Power Unit	Caterpillar C9.3 250 kW (335hp) or Scania DC9 313A 257 kW (350hp)	
Plant Colour	RAL 5021, RAL 7024, RAL 9005	

FEATURES & BENEFITS

The Powerscreen® Trakpactor 320 Horizontal Shaft Impactor is a highly compact tracked crusher designed to offer both excellent reduction & high consistency of product yield.

The Powerscreen® Trakpactor 320 is designed to give optimum performance in both quarry & recycling applications & is an ideal mid size contractors machine due to its compact design & mobility.

- Output potential of up to 320 tph / 353 US tph - depending on material type & crusher settings
- Double deck grizzly feeder with underscreen
- Radio remote control as standard
- Fully independent hydraulically driven pre-screen (optional)
- Load management system to control feeder speed
- Suitable for a variety of feed materials
- Proven Terex Impact crusher with hydraulic overload protection, 4 bar rotor & twin apron design
- Crusher speed variation through user friendly PLC control system
- Fully independent under crusher vibrating pan feeder (optional)
- Modular conveyor with raise/lower facility to aid clearance of rebar
- Powerful overband magnet (optional)
- Designed to give optimum performance in both aggregate, recycling & mining applications
- Hydraulically operated clutch & highly fuel efficient direct drive system
- Powerscreen Pulse telemetry as standard

APPLICATIONS

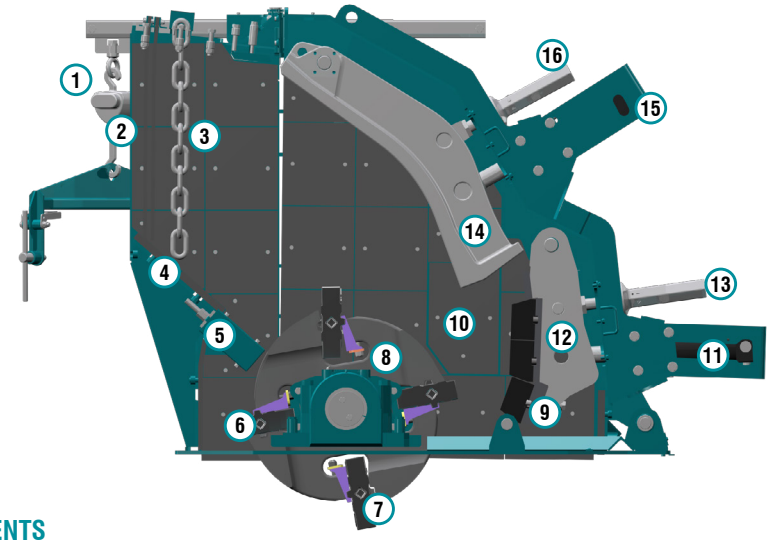
Aggregate
Blasted rock
River rock

Recycling
C&D waste
Foundry waste

Mining
Processed ores
Processed minerals

TRAKPACTOR 320

CRUSHER



PRINCIPAL COMPONENTS

1: Crusher Opening
2: Rubber Curtain
3: Chain Curtain
4: Inlet Chute
5: Inlet Wear Bar
6: Full Blow Bar
7: Half Blow Bar
8: Rotor
9-10: Wear Liners
11: Control Cylinder
12: Bottom Impact Apron
13: Apron Adjustment Spindle
14: Top Impact Apron
15: Control Cylinder
16: Apron Adjustement Spindle

PRINCIPLES OF OPERATION

Material enters via crusher opening & slides down the inlet chute where it is struck by the blow bars fixed within the rotor. This initial impact breaks the material which is then accelerated towards the top apron where more reduction takes place on impact. This material then falls back onto the blow bars & the cycle is repeated until the material is small enough to pass between the top apron & blow bar. Further reduction occurs on the bottom apron until the material can again pass through the gap & discharge from the underside of the crusher.

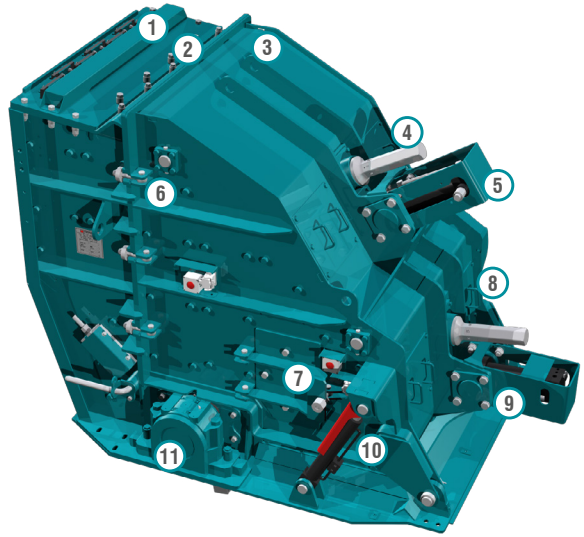
Should an un-crushable object enter the chamber, the overload cylinders will relieve & allow the object to pass. The cylinders will then return to the pre-set crushing position. The pre-set gap is adjusted by turning the adjustment spindle whilst the weight of the apron is held on the cylinder (hydraulic assist).

The hydraulic cylinders are pre-loaded to minimise apron bounce & wear on the cylinders.
This arrangement also greatly reduces the oversize produced & is Patented: GB2455203

TRAKPACTOR 320

CRUSHER SPECIFICATION

Feed opening:	1130mm x 800mm (44.5” x 31.5”)
Max lump size*:	450mm³ (18in³) / 780mm (31”) diagonally / 800 x 500 x 250mm (31 x 20 x 10”) slab * depending on material & blow bar specification
Rotor width:	1100mm (43.3”)
Rotor diameter:	1030mm (40.5”)
Number of aprons:	2
Max clearance:	180mm (7”) on both aprons
Max OSS setting:	150mm (6”) upper apron, 50mm (2”) lower apron
Min CSS setting:	75mm (2.9”) upper apron, 20mm (0.75”) lower apron
Blow bars:	Total of 4 blow bars
Blow bar removal:	Vertically
Blow bar configuration:	2 full & 2 half (optional 4 full)
Setting adjustment:	Hydraulic assist
Overload protection:	Hydraulic
Rotor speeds:	595 - 735rpm (32 - 40 m/s) (105 - 131 ft/s)
Applications:	Demolition / recycling / quarry
Crusher weight:	9000kg (19,842lbs)
Full blow bar weight:	220kg (485lbs)
Side liners:	20mm (0.75”) thick, abrasive resistant steel



PRINCIPAL COMPONENTS

1: Chain curtain cover
2: Main welded body
3: Impactor hinged section
4: Toggle bolts with enclosed polyurethane shock absorber
5: Inspector covers
6: Hydraulic overload & adjustment cylinders
7: Side door
8: Inspection covers
9: Bearing plumber block housing with mud guard & heavy duty labyrinth seals
10: Trunions
11: Hinged section opening cylinder

TRAKPACTOR 320

CRUSHER FEATURES

Crusher body: Precision fabricated from structural steel plate & fully lined with replaceable 500 HB abrasion resistant liner plates. Hinged side door allows access to apron tips & rotor for gap measurements & inspection. Complete hinged section opens hydraulically to allow blow bar removal & replacement, apron & liner replacement or major maintenance.

Rotor: Structural steel & fitted with four reversible, replaceable & fully clamped blow bars

Bearings: Double row self aligning spherical roller bearing fitted each end of rotor

Aprons: Cast manganese steel with replaceable 500 HB abrasion resistant wear plate on tip of bottom apron

Drive: Direct through wedge belts with tensioning system on the power unit

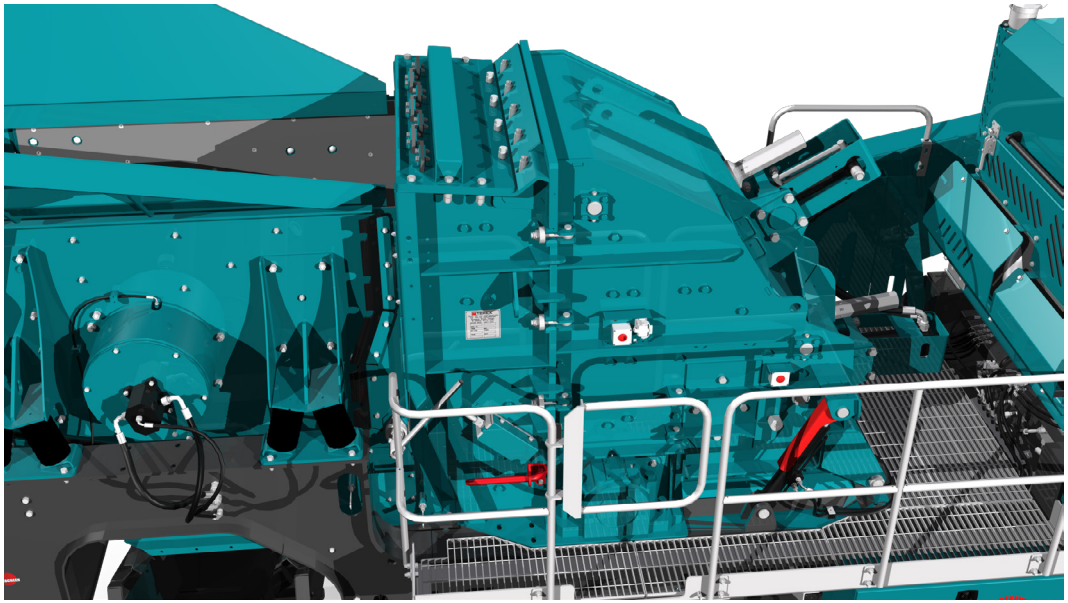
Lubrication: Grease lubricated rotor bearings fitted with inner & outer independently lubricated heavy duty labyrinth seals

Blow bars: Standard blow bar is martensitic steel, options are available in ceramic, medium chrome, medium chrome ceramic, high chrome, high chrome ceramic & toughened chrome

APPLICATIONS

This plant is designed for both demolition & quarrying applications. When fitted with martensitic or ceramic blow bars the crusher will tolerate small quantities of steel reinforcing bar in the feed. However, the machine is not designed to accept large pieces of steel or other un-crushable objects & the feed material should be assessed / inspected for suitability prior to crushing. It is vitally important that large pieces of steel or similar un-crushable objects are not allowed to enter the crushing chamber as severe damage & injury may occur.

When high chrome bars are fitted **all** steel should be removed from the feed material. The machine should only be used on quarry applications or clean materials such as asphalt.



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CRUSHER OPTIONS

BLOW BAR JIB CRANE

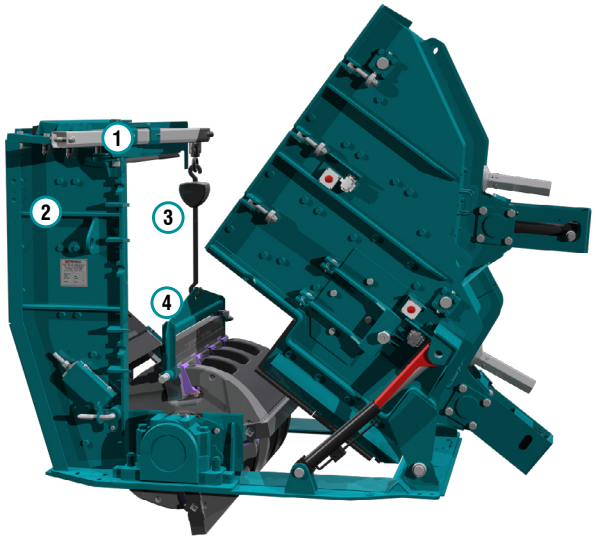
Part No. CR014-054-601

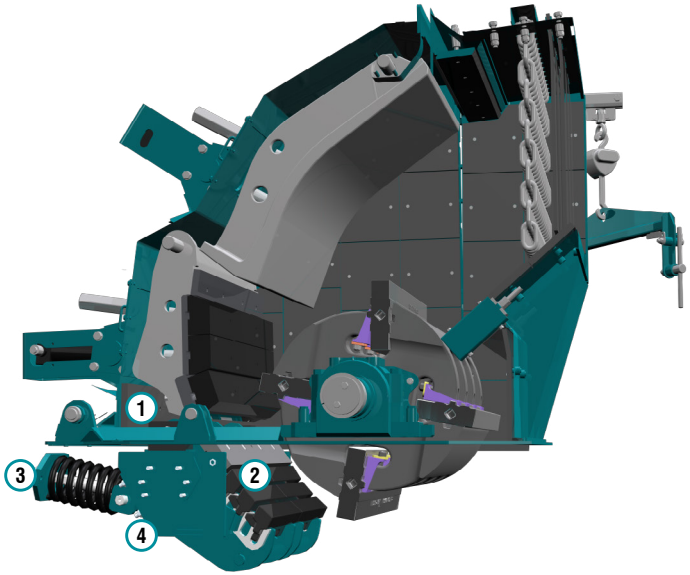
1: Fixes to pre-existing allocated mounting points on chamber fixed body kit provides all necessary parts with no rework required

2: Pivot and track facilitates full access to blow bar and swings clear of body during operation with minimal footprint

3: 500 kg s.w.l. pulley block

4: Designed to work with chamber blow bar cradle





GRINDING PATH

Part No. CR014-193-601

1: Lubricated split pivot blocks for ease of maintenance

2: Self retained manganese steel grinding rails with abrasion resistant steel top plate

3: Lubricated adjusting spindle with provision to fit socket for ease of adjustment

4: Kit provides all necessary parts to retrofit to existing feedboot with no rework required

TRAKPACTOR 320

HOPPER

VIBRATING GRIZZLY FEEDER HOPPER

Low profile hopper as standard, rigid hopper sides, no setup required, mounted directly to chassis

Hopper length: 4.04m (13' 3'')
Hopper width: 2.1m (6' 11') /
Hopper capacity: 6.25m³ (8.2 cu. yd.) / 9m³ (11.8 cu. yd.) with extensions
Hopper body: 8mm thick abrasion resistant steel plate

TRAKPACTOR 320

VIBRATING GRIZZLY FEEDER

Vibrating grizzly feeder pan with efficient, self cleaning integral two stage grizzly section

Type: Fully sprung vibrating pan

Length: 4.04m (13’ 3’’)

Width: 1.08m (3’ 6’’)

Pan: 10mm (0.4”) thick abrasion resistant base plate

Drive unit: Twin heavy duty cast eccentric shafts, running in spherical roller bearings, gear coupled at drive end

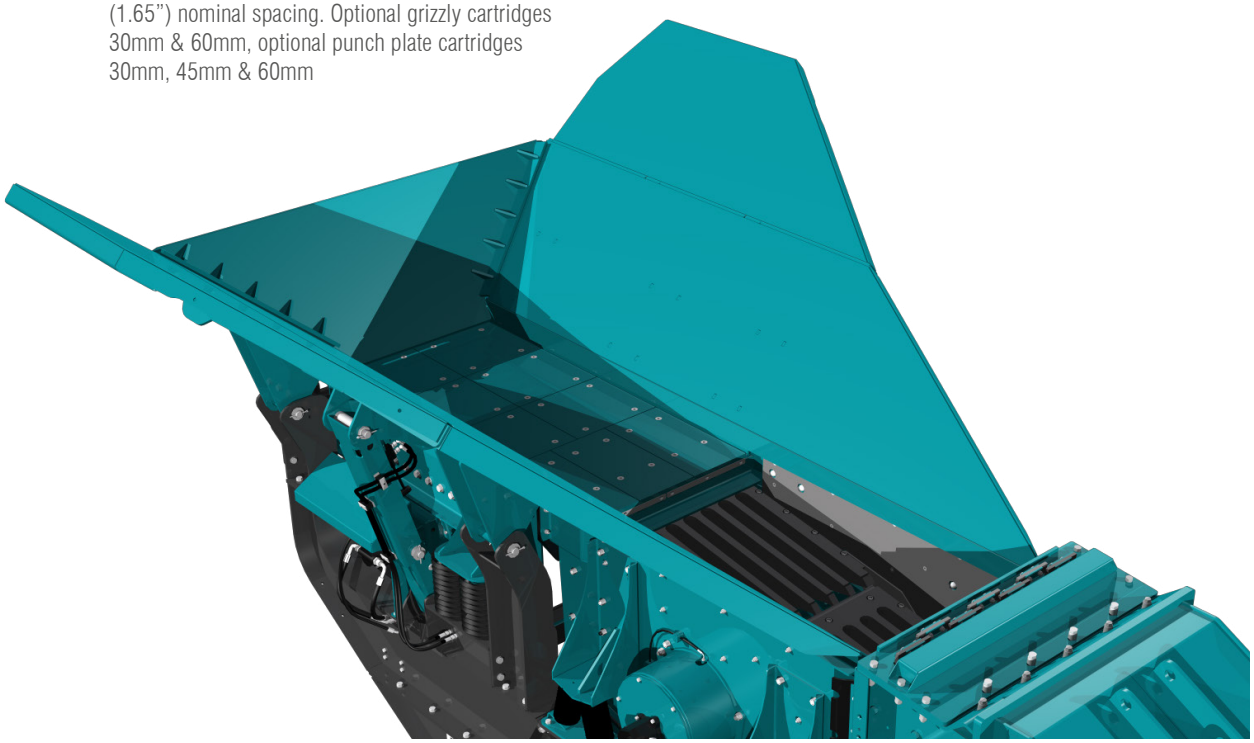
Drive: Flange mounted hydraulic motor

Grizzly: Two stepped bolt in cartridge sections with 950mm (3’ 1”) long self cleaning fingers set at 42mm (1.65”) nominal spacing. Optional grizzly cartridges 30mm & 60mm, optional punch plate cartridges 30mm, 45mm & 60mm

Screen: Removable rubber blanking mat fitted as standard, mesh screens optional

Control: Variable speed control via control panel & on optional radio remote where specified

Chute: Plant features bypass chute with internal two way flap door that controls the direction of fines, either forward onto product belt or down onto optional side conveyor where specified



TRAKPACTOR 320

PRODUCT CONVEYOR

FULL LENGTH PRODUCT CONVEYOR

Common features: Conveyor is shallow troughed with rollers at the lower end & a stainless steel tray design below magnet discharge area. The upper part of the conveyor has a centre roller with low friction slider pads providing the troughing. The conveyor is fully tunnelled with minimal snag areas.

Belt specification: Toughflex SW630/2 9+3 Grade X Covers

Belt width: 1000mm (2' 11")

Feedboot: Fabricated steel with abrasion resistant steel liners

Impact area: Low friction impact bars (under crusher pan feeder optional)

Skirting: Fully skirted up to magnet discharge area

Drive: Hydraulic motor direct to head drum

Lubrication: Centralised greasing bank, for shaft bearing lubrication

Dust covers: Aluminium removable dust covers are fitted over the exposed section of the conveyor. Optional head drum hood available

Belt adjustment: Belt tensioning using screw adjusters at head drum

Pressure sensor: Designed to stop plant feed if the discharge conveyor slows or stops

PRODUCT CONVEYOR CONFIGURATION

Fully removable modular unit

Hydraulic raise & lower facility to increase clearance & aid rebar removal

Hydraulic raise & lower facility can be operated whilst crushing

Discharge height: 3.46m (11' 4")

Stockpile volume: 76m³ (99 cu. yd.)

Discharge height: 4m (13' 1") (extended conveyor)

Stockpile volume: 118m³ (154 cu. yd.) (extended conveyor)

DUST SUPPRESSION SYSTEM

Spray bars with atomiser nozzles are mounted over the product conveyor feed & discharge points, piped to an inlet manifold for customer water supply or optional pump

Type: Clean water multi atomising nozzles

Inlet: Single point on chassis

Inlet pressure: 3 bar (44 psi)

Water supply: 24 L/min (6.34 G/min) minimum

Frost protection: Via system main valves

Pump: Optional

TRAKPACTOR 320

POWER UNIT & HYDRAULICS

Tier 3 Equivalent: Caterpillar C9.3, 6 cylinder, direct injection 250 kW (335hp)

Operating conditions: Ambient temp. +30°C to –5°C (86ºF to 23ºF) at altitudes up to 2000m (6562ft) above sea level - For applications outside this range please consult with Powerscreen as the plant performance / reliability may be affected.

Operating rpm range: 1700 - 2100rpm

Plant drive: High quality pumps driven via belts from engine

Fuel tank capacity: 500 L (132 US Gal)

Tier 4F / Stage V: Scania DC9 313A 257kW (350hp)

Operating conditions: Ambient temp. +30°C to –5°C (86ºF to 23ºF) at altitudes up to 2000m (6562ft) above sea level - For applications outside this range please consult with Powerscreen as the plant performance / reliability may be affected.

Operating rpm range: 1700 - 2100rpm

Emission control technique: Selective Catalytic Reduction (SCR)

Reductant tank size: 60 L (16 US Gal)

Plant drive: High quality tandem pumps driven via engine PTO's

Fuel tank capacity: 500 L (132 US Gal)

Hydraulic tank capacity: 550 L (145 US Gal)

Clutch type: Highly efficient, self-adjusting HPTO 12 dry plate clutch with electro hydraulic operation

Crusher drive: Direct drive via wedge belts,

Clutch pulley diameter 280mm (11")

Crusher pulley diameter 800mm (31.5")

Crushing performance can be tuned by changing engine speed between 1700 - 2100rpm on the PLC without significant loss of engine performance

Drive tensioning: Manually adjustable screw tensioners located under power unit

Scania Stage V / Tier 4 Final Technology

Scania industrial engines meet the requirements of Stage IV and Tier 4 Final without the need for a particulate filter. With only EGR and SCR technology, the installation will be unaffected. Scania-developed systems for engine management and emission control ensure an attractive blend of performance and operating economy.

The function of the SCR system is based on the injection of a urea solution (AdBlue or DEF, Diesel Exhaust Fluid) into the after-treatment system.

With EGR, a small amount of exhaust gases is returned to the intake of the engine, diluting the intake air and reducing the oxygen concentration. This will reduce the combustion temperature and further reduce emissions.

TRAKPACTOR 320

TRACKS

CRAWLER TRACKS

Type:	Heavy duty, 2 speed, bolt on
Sprocket centres:	3.24m (10’ 8”)
Track width:	400mm (1’7’’)
Gradeability:	30° maximum
Drive:	Hydraulic
Tensioning:	Hydraulic adjuster, grease tensioned

TRAKPACTOR 320

PLANT CONTROLS & OTHER

GUARDS

Wire mesh or sheet metal guards are provided for all drives, flywheels, pulleys & couplings.

The guards provided are designed & manufactured to CE & ANSI standards.

PLATFORMS

Platforms are provided for maintenance on one side of the feeder & impactor. These are fitted with double row handrails & access ladders

Platforms are also provided to gain access to the rear of the crusher & the power unit

Galvanised walkways as standard

PLANT CONTROLS

Full PLC control panel

Full system diagnostics

Controls fitted to the plant include:

Sequential start up

- Engine (start/stop/speed)
- Crusher (start/stop)
- Optional bypass conveyor (start/stop)
- Product conveyor (start/stop & raise/lower)
- Feeder (start/stop/speed) controls, located on the side of the plant

UMBILICAL CONTROL

An umbilical control unit is supplied as standard with the plant. Controls tracking function & has a stop button for the plant.

CHASSIS

Heavy duty I-Section welded construction, provides maximum strength & accessibility.

8mm thick web

15mm thick flange

Modular chassis between pre-screen & VGF

RADIO REMOTE

Complete with integrated tracking functions & plant stop button.

Remote can also be used for:

- Feeder (stop/start/speed)
- Product conveyor (raise/lower)
- Open top apron

TRAKPACTOR 320

OPTIONS

VIBRATING PAN FEEDER

Pan Type: Sprung vibrating pan

Vibrating Unit: Twin heavy duty cast eccentric shafts running in spherical roller bearings, gear coupled at drive end, flange mounted hydraulic motor

Length: 2.15m (7'1'')

Width: 1.08mm (3'7'')

Pan: 12mm thick replaceable abrasion resistant liners

LIVE PRE-SCREEN

Pre-screen: Sprung vibrating unit with stepped finger bofor deck

Vibrating unit: Single shaft, out of balance weights, flange mounted hydraulic motor

Bofor deck: 2 stepped bolt in cartridges 50mm (2") nominal spacing 9mm throw 1000rpm screen speed

Dimension (top deck)

Length: 2m (6' 7")

Width: 1.06m (3' 6")

Mesh deck: 38mm (1.5") nominal spacing 17º incline

Dimension (bottom deck)

Length: 1.6m (5' 3")

Width: 1.06m (3' 6")

Chute: Bypass chute with internal 2 way flap door fitted, to control direction of fines, either forward onto the product belt or onto the optional side conveyor (if blanking mat is fitted)

Modular section: Hopper & feeder mounted on removable modular subframe

PRE-SCREEN HOPPER

Hydraulic folding hopper with over centre struts. Hydraulic hopper lock system operated at ground level

Hopper width: 2.53m (8' 4'')

Hopper capacity: 6.25m³(8.2 cu. yd.)

Hopper body: 8mm thick abrasion resistant steel plate

PRE-SCREEN HOPPER (EXTENSIONS)

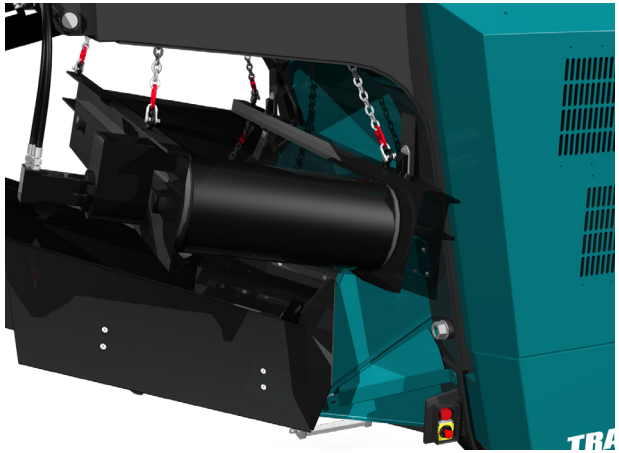
Bolt-on hopper extensions. Hydraulic folding hopper with over centre struts Hydraulic hopper lock system operated at ground level.

Hopper width: 4m (13' 1")

Hopper capacity: 9m³ (11.8 cu. yd.)

Hopper body: 8mm thick abrasion resistant steel plate

Weight: 540kg (1190lbs)



TRAKPACTOR 320

OPTIONS 2

BYPASS CONVEYOR

Belt:	EP250/2 with 3mm top & 1.5mm bottom heavy duty rubber covers, vulcanised joint
Type:	Steel troughed roller, hydraulic folding
Width:	650mm (2’2’’)
Discharge:	2.72m (8’ 11”)
Stockpile volume:	37m³ (48 cu. yd.)
Drive:	Direct drive hydraulic motor
Position:	Discharge on RHS of plant. LHS variant available * only available with pre-screen
Weight:	1250 kg (2755 lbs)

EXTENDED BYPASS CONVEYOR

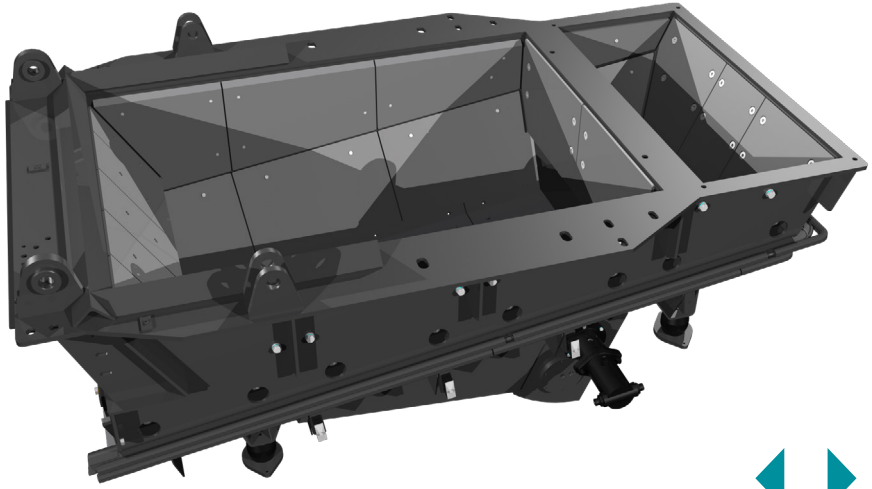
Belt:	EP250/2 with 3mm top & 1.5mm bottom heavy duty rubber covers, vulcanised joint
Type:	Steel troughed roller, hydraulic folding
Width:	650mm (2’ 2”)
Discharge:	3.78m (12’ 5”)
Stockpile volume:	100m³ (130 cu. yd.)
Drive:	Direct drive hydraulic motor
Position:	Discharge on RHS of plant LHS variant available *only available with pre-screen
Weight:	1250 kg (2755 lbs)

VIBRATING UNDERPAN FEEDER

Type:	Steel bodied vibrating feeder fitted with abrasion resistant liners, mounted under the crusher & designed to prevent any impact damage to the product conveyor belt
Width:	1.1m (3’ 7’’)
Length:	2.47m (8’ 1’’)
Note:	When a vibrating underpan feeder is selected, the short product conveyor belt which accompanies will have the following specification: EP500/3 8+2

OVERBAND MAGNET

Magnet type:	Single Pole (SP), Twin Pole (TP) & Heavy Duty Twin Pole (HTP) available.
Belt width:	750mm (2’ 6”)
Centres:	1700mm (5’ 7”)
Drive/Control:	Direct drive hydraulic motor / pre-set variable speed
Weight:	SP 975kg / TP 1470kg / HTP 2300kg



TRAKPACTOR 320

OPTIONS 3

CONTROL PANEL POSITIVE PRESSURISATION

An additional unit designed to reduce dust particles within the control panel.
A continuous flow of clean air is passed through the cabinet whilst the unit simultaneously filters out any particulate laden air.

HOT/COLD CLIMATE OILS

Cold climate oils - (Recommended for ambient temperatures between -20 to +30ºC) - Hydraulic & lubrication oils only. Other component modifications may be required for low temperature operations. Please contact the Powerscreen sales & applications department with any queries.

Hot climate oils - (Recommended for ambient temperatures between +15 to +50ºC)

BLOW BARS

High: Suitable for medium to hard rock

Chrome: Applications with no steel present in feed. Good wear characteristics

Ceramic: Suitable for applications with limited steel in feed. Improved wear characteristics over standard martensitic

4 full blow bars: Available in all options

BELT WEIGHER

Belt scale monitors material volume.
Belt scales fitted to product on standard conveyor.

PLANT LIGHTING

Plant lighting kit available, contains two bi-directional working lamps. Both activated remotely from control panel.

TRAKPACTOR 320

POWERSCREEN PULSE

RECORD, DISPLAY AND ANALYSE DATA:

HIGH EFFICIENCY THROUGH PRECISE INFORMATION

Available online anywhere and at any time: comprehensive information on the GPS location, start and stop times, fuel consumption, tonnages, cone settings, wear ratings, operating hours, maintenance status, and much more.

AVAILABLE ANYWHERE AND AT ANY TIME

DASHBOARD DISPLAY

FLEET OVERVIEW

WEEKLY REPORT DIRECT TO YOUR INBOX

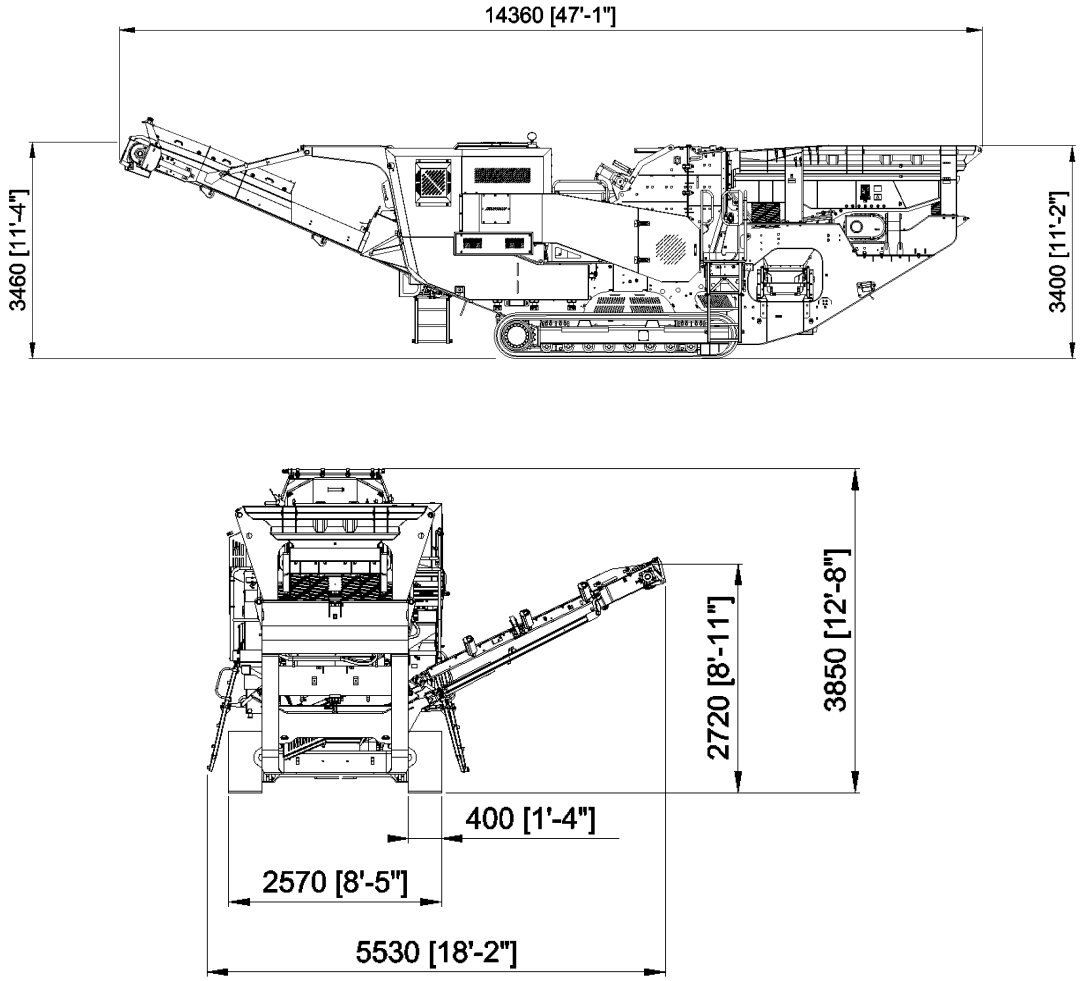
GPS: MACHINE TRACKING

REPORTING
UTILISATION, PERFORMANCE & PART SPECIFIC

TRAKPACTOR 320

DIMENSIONS

Figure 1: Trakpactor 320 - Standard Unit VGF
Working Position

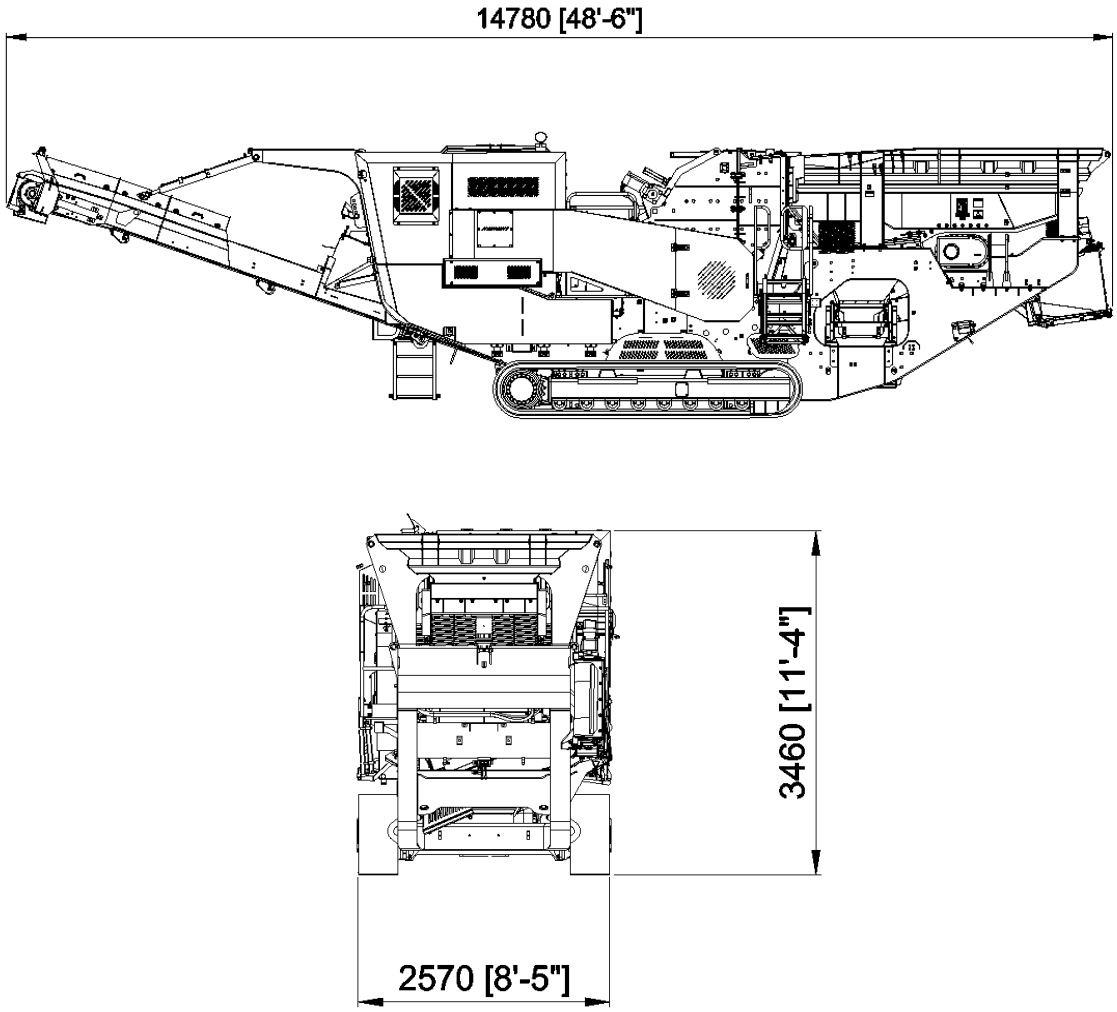


MORE DIMENSIONS OVERLEAF

TRAKPACTOR 320

DIMENSIONS

Figure 2: Trakpactor 320 - Standard Unit VGF
Transport Position

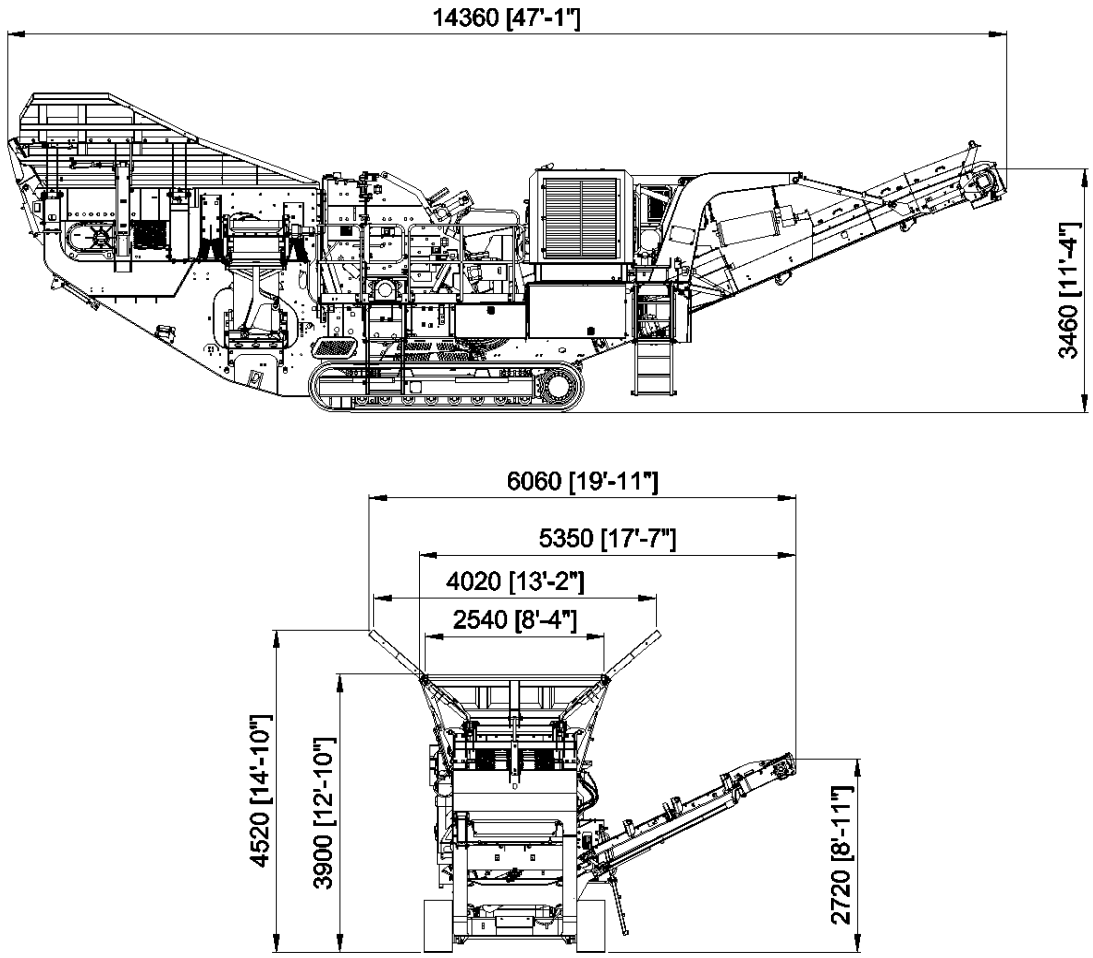


MORE DIMENSIONS OVERLEAF

TRAKPACTOR 320

DIMENSIONS

Figure 3: Trakpactor 320 - Pre-screen, Short bypass conveyor, Hopper extensions, Magnet Working Position

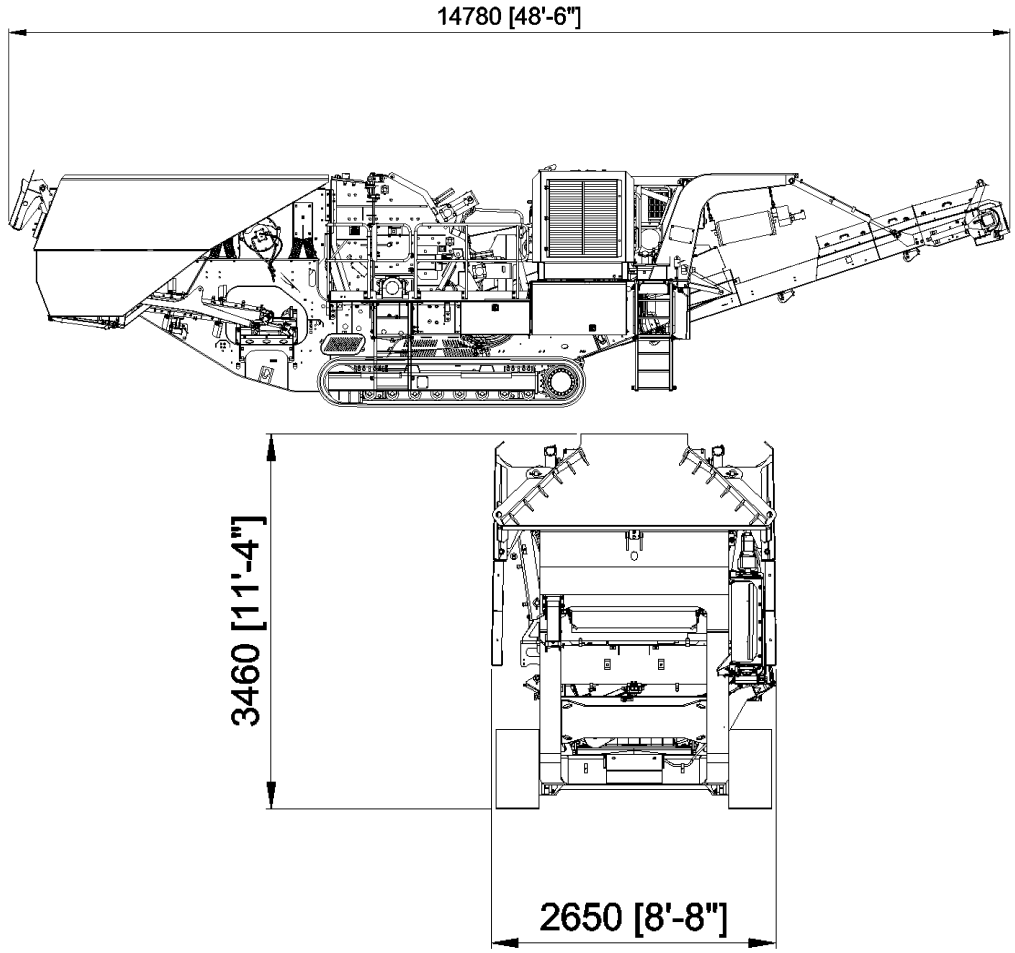


MORE DIMENSIONS OVERLEAF

TRAKPACTOR 320

DIMENSIONS

Figure 4: Trakpactor 320 - Pre-screen, Short bypass conveyor, Hopper extensions, Magnet Transport Position



Powerscreen equipment complies with CE requirements.

Please consult Powerscreen if you have any other specific requirements in respect of guarding, noise or vibration levels, dust emissions, or any other factors relevant to health and safety measures or environmental protection needs. On receipt of specific requests, we will endeavour to ascertain the need for additional equipment and, if appropriate, quote extra to contract prices.

All reasonable steps have been taken to ensure the accuracy of this publication, however due to a policy of continual product development we reserve the right to change specifications without notice.

It is the importers' responsibility to check that all equipment supplied complies with local legislation regulatory requirements.

Plant performance figures given in this brochure are for illustration purposes only and will vary depending upon various factors, including feed material gradings and characteristics. Information relating to capacity or performance contained within this publication is not intended to be, nor will be, legally binding.

GET IN TOUCH

Dungannon
200 Coalisland Road, Dungannon,
Co Tyrone, BT71 4DR, Northern Ireland
Tel: +44 (0) 28 87 718 500
Fax: +44 (0) 28 87 747 231

Louisville
11001 Electron Drive,
Louisville, Kentucky, 40299 USA
Tel: +1 502 736 5200
Fax: +1 502 736 5202

www.powerscreen.com

APPENDIX 1 - ENGINE OPTIONS - Powerunit options that may be fitted in place of technical specification offering subject to availability

Crushers – Tier 2

CAT C9.3 242kW (325hp) as per 1000 Maxtrak and CAT C9.3 250kW (335hp) as per Trakpactor 320

Option 1.) Scania DC09 074A 257kW (350hp)

Crushers – Stage V

CAT C4.4 129kW (173hp) as per Metrotrak

Option 1.) Volvo D5 129kW (173hp)

CAT C7.1 205kW (275hp) as per Premiertrak 330

Option 1.) Volvo D8 210kW (282hp)